

# Hypophosphatasia (HPP) is a metabolic disorder characterized by LOW Alkaline Phosphatase (ALP) activity<sup>1</sup>

Patients with HPP may experience unpredictable, devastating, and life-limiting consequences, including:<sup>1</sup>



**PREMATURE TOOTH LOSS**



**SHORT STATURE AND/OR UNUSUAL GAIT**



**MUSCLE WEAKNESS AND/OR FATIGUE**



**CHRONIC MUSCLE/JOINT PAIN**



**SKELETAL DEFORMITIES AND/OR FRACTURES**

- In adults, low ALP activity is **<40 U/L**<sup>2,a</sup>
- Age- and sex-adjusted ALP reference intervals must be used in children<sup>3,4</sup>

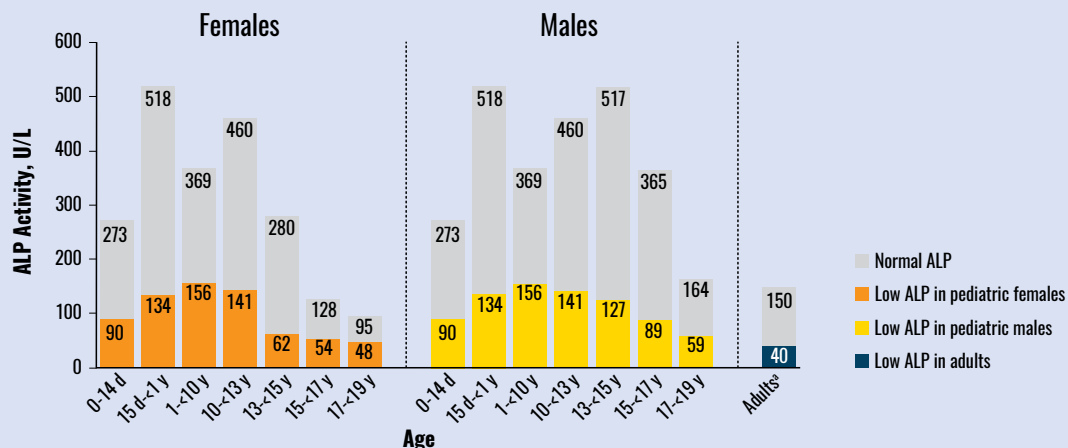
Patients with any of these key signs/symptoms and **LOW ALP** should be evaluated for HPP<sup>1</sup>

<sup>a</sup>Example cutoff from Abbott Laboratories; adult ALP ranges are lab specific and may vary.

**References** 1. Bishop N, et al. *Arch Dis Child*. 2016;101(6):514-515. 2. Alkaline phosphatase [package insert]. Abbott Park, IL: Abbott Laboratories; 2007. 3. Offiah AC, et al. *Pediatr Radiol*. 2019;49(1):3-22. 4. Colantonio DA, et al. *Clin Chem*. 2012;58(5):854-868.

**LOW Alkaline Phosphatase (ALP) may not be flagged if your laboratory does not use age- and sex-adjusted reference intervals in children when testing ALP activity<sup>1</sup>**

## Age- and sex-adjusted ALP reference ranges, U/L<sup>2,3</sup>



NOTE: Graph adapted from the Canadian Laboratory Initiative on Pediatric Reference Intervals (CALIPER) project.<sup>2</sup> Caliper samples from 1072 male and 1116 female participants (newborn to 18 years) were used to calculate age- and sex-specific reference intervals. No variation in ALP based on ethnic differences was observed. Reference intervals shown were established on the Abbott ARCHITECT c8000 analyzer.

<sup>a</sup>Adult interval provided by the Abbott ARCHITECT ALP product information sheet is for females >15 and males >20 years of age. For younger ages, Abbott does not provide lower limits of normal.<sup>3</sup>

**LOW Alkaline Phosphatase (ALP) is hallmark of Hypophosphatasia.<sup>1</sup>**

To learn more, please visit [www.hypophosphatasia.com](http://www.hypophosphatasia.com)

**References** 1. Rockman-Greenberg C. *Pediatr Endocrinol Rev*. 2013;10(2 suppl):380-388. 2. Colantonio DA, et al. *Clin Chem*. 2012;58(5):854-868. 3. Alkaline phosphatase [package insert]. Abbott Park, IL: Abbott Laboratories; 2007.

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to learn more information about hypophosphatasia.**